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February 28, 2000

**Via Hand Delivery**

Magalie Roman Salas, Secretary  
Federal Communications Commission  
445 12th St., S.W., Room TW-B204  
Washington, D.C. 20554

**Re: Written Ex Parte Communication  
in ET Docket No. 98-206**

Dear Ms. Salas:

This responds to various of the comments filed in the above-referenced proceeding addressing a proposal (the "Joint Proposal") submitted jointly by SkyBridge L.L.C. ("SkyBridge") and the Fixed Wireless Communications Coalition ("FWCC") (together, the "Parties") for facilitating the co-existence of nongeostationary orbit ("NGSO") fixed satellite service ("FSS") systems and certain fixed service ("FS") systems operating in the 10.7-11.7 GHz band.<sup>1/</sup> The Commission sought comments on the Joint Proposal by Public Notice, DA 99-3008, released December 27, 1999.

Many of the commenters appear to agree with both the spirit and letter of the Joint Proposal. SkyBridge will focus its attention here on those comments that question certain aspects of the Joint Proposal or suggest alternative regulatory schemes. As will be discussed in greater detail below, all of those alternatives (or some variation thereon) were considered, and ultimately rejected, by the Parties during their discussions.<sup>2/</sup>

<sup>1/</sup> See Letters from Leonard R. Raish, et al. to Magalie Roman Salas, Secretary, dated December 8, 1999, and December 22, 1999 (respectively, the "December 8 Letter" and the "December 22 Letter").

<sup>2/</sup> SkyBridge will not at this time comment on the points raised by the Society of Broadcast Engineers ("SBE"). As was noted in both SkyBridge's and SBE's comments, the parties are engaged in discussions regarding SBE's concerns

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Several commenters -- e.g., Bell Atlantic, SBC Communications, Inc. ("SBC"), Hughes Communications, Inc. ("Hughes") -- question the use of county boundaries as the geographic definition of a FS Growth Zone, particularly given the substantial variation in size of counties nationwide. Some suggest that, as opposed to the Joint Proposal's 30-licensed-frequency standard for determining whether a county qualifies as a Growth Zone, some sort of "links-per-square-mile" approach (or similar measure of density) would be a superior criterion. Some also maintain that the 30-frequency benchmark is arbitrary.

While there is some measure of truth, in an abstract sense, to all of these observations, none undermines the rationale supporting the Joint Proposal. The 30-channels-per-county approach was agreed upon by the Parties after much debate and consideration of alternatives, specifically including some arguably more "sophisticated" measure of density. A primary consideration in the discussions was to arrive at a plan that relied on data already readily available in the FCC data base. Counties appear in the application and on the FCC licenses covering the subject FS links. The database (whether the FCC's or some private party's) can readily be checked by county; nothing new is required. The same cannot be said for a links-per-square-mile or similar approach. Moreover, the sort of density benchmark suggested

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<sup>2/</sup> (...continued)  
with respect to the 12.7-13.25 GHz band. The instant subject involves the 10.7-11.7 GHz band.

SkyBridge has no opinion with regard to certain of the comments from, e.g., Pan American Satellite ("PAS") and GE American Communications, Inc., that seek to ensure that, if adopted, the Joint Proposal would not be applied to geostationary ("GSO") earth stations that may operate in the 10.7-11.7 GHz band. SkyBridge can confirm that the Parties' discussions focused only on NGSO systems; whether the Joint Proposal (or some variation thereon) might reasonably be applied to GSO systems was not considered.

SkyBridge does note, however, PAS' comment to the effect that SkyBridge has shown more flexibility vis-à-vis the FS community than with respect to PanAmSat's concerns regarding GSO/NGSO frequency-sharing. See PanAmSat Comments at 1, n.2. PAS' observation is both gratuitous and erroneous. The impact of the agreement reached at the Conference Preparatory Meeting in November 1999, which established a proposal for international technical standards for NGSO/GSO coexistence, to be adopted at WRC-2000, imposes a far greater burden on SkyBridge's operations than does the Joint Proposal, and PAS knows full well that this is so.

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by Bell Atlantic and others is just as susceptible to "inequitable results" as the Joint Proposal's standard.

Indeed, the Parties recognized that, particularly in some large western counties that would qualify as a Growth Zone, a Gateway could be sited hundreds of miles from the nearest FS link but still be burdened, at least in theory, by the Growth Zone obligations. Conversely, a Gateway could be sited in a non-Growth Zone county at a location immediately adjacent to a county that was a Growth Zone, and not be burdened by special obligations. The point is that, in order to achieve a relatively simple, easily understood and applied standard, the frequencies-per-county approach survived the Parties' joint scrutiny better than any other measure.

Finally, it must be recalled that no Gateway will be sited -- in or out of a Growth Zone (however defined) -- unless it passes muster under the standard coordination rules. As the Parties emphasized, nothing in the Joint Proposal is intended to disturb the basic coordination standards and procedures applicable to the band; indeed, the Joint Proposal relies on their existence and application to the siting of both new Gateways and FS links. Thus, it is unlikely that a Gateway could be sited near a high-density FS area.

With respect to the selection of 30 frequencies -- as opposed to 20 or 50 -- as the threshold for Growth Zone status, there is no doubt that, as several commenters observed, 30 is, at least in an abstract sense, an arbitrary number; so would be any other number, whether applied on a links-per-county basis or links-per-square-mile basis. Equally arbitrary would be a rule establishing a 100 km exclusion zone around the 50 largest markets (why 100 km? why 50 markets?). The selection of any particular number as a regulatory threshold is in some sense arbitrary; but it is not ipso facto irrational or unlawful, so long as, within the given context, the number selected represents a reasonable -- even if not the only reasonable -- choice.

Here, the Parties' respective interests obviously pulled in opposite directions. Upon examination of the Growth Zones created by a 30-frequency threshold, the Parties concluded that it represented a fair balance between their competing interests, taking into account the obligations that would be undertaken by a Gateway operator locating a facility in a Growth Zone. The fact that a 50-channel cut-off would be better for NGSO systems and a 10-channel standard better for the FS community is both obvious and irrelevant.<sup>3/</sup>

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<sup>3/</sup> The premise underlying SBC's contention that the number of 2 GHz links also should be relevant to defining a Growth Zone is flawed. While some 11 GHz links may have been installed as a substitute for some 2 GHz links (and some may be in the future), the FS allocation in the 11 GHz band does not exist as a  
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Maintaining and updating the Growth Zone list every six months should not represent a significant burden for the Commission's staff. Contrary to the suggestion of SBC, the data is already being collected. Generating and publishing a new semi-annual list would not seem to be overly taxing of the Commission's resources.

With regard to Comsearch's view that its database is more accurate than the Commission's, that may indeed be true. The Parties specified reliance on the Commission's database for establishing and updating the Growth Zone list because the Commission is, ultimately, the final arbiter in such matters. If the Commission were to delegate the task of identifying the counties for the semi-annual updating of the Growth Zone list to a private entity, SkyBridge would have no fundamental objection, so long as the list, as finally issued, was deemed to be an FCC document that could be relied upon by a Gateway operator in the site selection process.

It is the inherent nature of the Gateway site selection process that necessitates rejection of Comsearch's offer to update the Growth Zone list in real time, rather than at six-month intervals. Put simply, this would completely undermine one of the fundamental concepts in the Joint Proposal. Because of the difficulty and substantial expense involved in siting and constructing a Gateway, NGSO licensees need some measure of certainty that, during the process of assessing and acquiring (either by purchase or lease) a particular site, that location will not suddenly be

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replacement for 2 GHz. Given, e.g., the typical path length differences, 11 GHz is hardly a substitute for 2 GHz. Moreover, given the increasing availability and decreasing cost of fiber, many microwave links are being replaced by fiber, not by other, higher frequency links. Indeed, this trend was noted in the Parties' December 8 Letter, at 4 n.5, observing that, nationwide, the number of 11 GHz links has diminished over the past few years. There is simply no rational basis for complicating the Joint Proposal's relatively simple standard in the manner proposed by SBC.

The American Association of Railroads ("AAR") asks that the Commission entertain waiver requests in cases in which strict application of the 30-frequency standard somehow works an unforeseen hardship. Obviously, the Commission always must accord due consideration to a properly supported request for waiver of any of its rules. See, e.g., WAIT Radio Inc. v. FCC, 418 F.2d 1153 (D.C.Cir. 1968). Any FS licensee or Gateway operator who perceives that strict application of this (or any other) rule in a given set of circumstances would be inconsistent with the underlying public interest would be free to seek a waiver of the relevant rule. There is no need here for any special reaffirmation of that general principle of administrative law.

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transformed from a non-Growth Zone to a Growth Zone, thereby adversely affecting the desirability of that site. The six-month window, with known beginning and end dates, represents a delicate compromise among the Parties that cannot be disturbed without undermining other essential aspects of the Joint Proposal.

Hughes and Virgo, each in their own way, question the wisdom of the Gateway definition. Virgo wants to employ non-Gateways in the band -- claiming that its high elevation angles eliminate any likelihood of interference to/from FS systems. Hughes prefers the use of an antenna gain mask as opposed to an antenna size restriction.

The problem with Virgo's approach is obvious. Every NGSO system could claim that, e.g., its user terminals would be benign vis-à-vis the FS and thus should be permitted in the band, leading to arguments over what minimum elevation angles/power levels will not materially impact the long-term use of the band by the FS. The whole point of restricting NGSO access to the band to legitimate Gateway functions is to protect the reasonable long-term viability of the band for FS growth. Assuming arguendo that Virgo could demonstrate the benign nature of its proposed facilities, the possibility of a waiver, as noted by AAR, is always open to it; the floodgates, however, should not be opened.

With respect to Hughes' stated preference for a performance mask over a minimum antenna size, SkyBridge shares Hughes' concern that technical advances not be thwarted by anachronistic standards. Indeed, in its initial and reply comments in this proceeding, SkyBridge argued against establishing a minimum antenna size for Gateways.

However, in the near term, a 2.5-meter (or its technical equivalent) standard does not appear overly constraining to NGSO systems and provides substantial assurances to the FS community that Gateways will not become ubiquitous. If future antennas can be deployed in a manner that does not undermine that fundamental concern, the safety valve of a waiver always exists.<sup>4/</sup>

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<sup>4/</sup> The 11 GHz "hub and spoke" VSAT network hypothesized by Hughes would appear to be precisely the sort of ubiquitous system feared by the FS. While there would not appear to be any problem with a Gateway operating as the hub, the remote terminals at the ends of the spokes should not be permitted to use the 11 GHz band. However, contrary to Hughes' suggestion, the Joint Proposal would not prevent NGSO systems from providing, e.g., local exchange service. The traffic simply needs to pass through the Gateway and then into the terrestrial network. This sort of service is contemplated by SkyBridge; whether Hughes' proposed system has that capability is not clear.

Hughes also suggests that a numerical limit on the aggregate number of Gateways that NGSO FSS systems could deploy in the 11 GHz band would be preferable to a tight definition on what constitutes a Gateway. As an abstract proposition, SkyBridge might not object to that proposal; indeed, the Joint Parties considered that alternative in their discussions. The main obstacle to the Joint Parties' adopting such an alternative was that no one could provide a number that would accommodate all NGSO systems (assuming that such a number would appear reasonable to the FWCC), and Hughes does nothing to solve this problem. SkyBridge has repeatedly said that it will need in the range of between thirty and forty Gateways (and fewer, at least initially, based on traffic) to cover the U.S. But no other NGSO applicant has provided similar information regarding its system. In the absence of a relatively finite number for each system, attempting to establish an aggregate Gateway cap is a fairly unproductive exercise.

Finally, a brief response is in order to some of Comsearch's questions regarding the details of the various Growth Zone "obligations" set out in the Joint Proposal. First, as noted above, the Joint Proposal does not advocate any changes to the basic coordination procedures. Indeed, the Parties stated exactly the opposite.<sup>5/</sup> Thus, some of Comsearch's concerns (as well as those of others) appear misplaced.

SkyBridge is somewhat at a loss to understand Comsearch's concern with the limitation of "practicability" on a Gateway operator's obligation to install shielding (or otherwise reduce the potential impact of a new FS station) at a Gateway located in a Growth Zone. Obviously, there is a measure of subjectivity to the term, but that is not necessarily a defect in the proposed regulation. An infinite number of variables can be present in the technical scenario envisioned by the proposed rule. Assuming the good faith of the parties involved, it is eminently appropriate to limit one party's obligations by examining the practicality of a proposed solution. Put another way, is Comsearch arguing in favor of a rule that imposes an impractical solution? In the rare instance in which an agreement regarding a shielding or other solution eludes the relevant parties, the Commission is fully capable of resolving the matter in accord with the fundamental considerations that underpin the rule.<sup>6/</sup>

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<sup>5/</sup> The Joint Proposal represents rules to be adopted by the Commission, not, as Comsearch suggests, "guidelines" to be considered in the coordination process.

<sup>6/</sup> Similarly strained is Comsearch's concern that, by tying the scope of the shielding that may be required at a Gateway located within a Growth Zone to "good engineering practices," this means, by implication, that such practices are not required to be employed in constructing a Gateway outside a Growth Zone. SkyBridge would not object to the imposition of a "good engineering  
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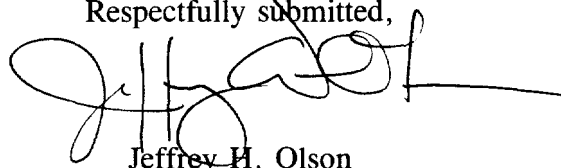
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SkyBridge does not fully understand Comsearch's expressed concern regarding the proposed rule that would allow a Gateway operator, who was seeking to locate in a Growth Zone at an otherwise non-coordinatable site, to accept (essentially in perpetuity) a certain level of interference generated by an existing FS station from a particular azimuth.<sup>7/</sup> The problem with Comsearch's proposal, as SkyBridge understands it, is that, given the nature of a NGSO FSS Gateway -- omnidirectional operation (over time), utilizing the full band -- the fact that a defined "hit" from one direction can be accepted by the Gateway does not mean that similar hits from other (albeit proximate) directions also can be accepted. Variables such as the number of satellites visible from the Gateway, their inclination angles, traffic and loading requirements, etc., all will affect the Gateway's flexibility. Compensating for the first "hit" tends to reduce system flexibility. Thus, expanding this obligation beyond the precise terms delineated by the Parties could significantly undermine the basis upon which SkyBridge initially found the obligation to be reasonable. As was pointed out previously, there is a delicate balance among the various obligations described in the Joint Proposal, which should not be disturbed.

In conclusion, none of the comments provides any reason not to adopt the Joint Proposal as submitted by SkyBridge and the FWCC. SkyBridge requests that the Commission adopt the Joint Proposal.

Respectfully submitted,



Jeffrey H. Olson  
Attorney for SkyBridge LLC

cc: Julius Knapp  
Thomas Tycz  
Thomas Stanley

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<sup>6/</sup> (...continued)  
practices" requirement on all Gateways and FS facilities, wherever situated; indeed, SkyBridge has always been under the impression that such a requirement was implicit with respect to all technical facilities licensed or otherwise regulated by the Commission. The phrase was used by the Parties in this context as an additional means of ensuring against the imposition of an impractical solution.

<sup>7/</sup> Bell Atlantic raises a similar point in its comments.